

Descriptions of New Species of Cynipidae (Hym.).

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Dryophanta clavula, sp. nov.

Female.—Head rufous, infuscated along the face and on the vertex around the ocelli, evenly and finely reticulately punctate, sparsely hairy, eyes black. Antennae 14-jointed, first joint stout, short, second joint much smaller and stout, third to sixth joints long and slender, third longest; remaining joints short and subequal, dusky brown, somewhat darker toward the tip. Thorax pitchy brown, rufous posteriorly and anteriorly at the sides, microscopically pitted, especially anteriorly, shining and with scattered decumbent, yellowish hairs. Parapsidal grooves deep and distinct, widely separated anteriorly and running obliquely backward to the scutellum, where they are close together. Median groove wanting. Anterior parallel lines broad, shining, smooth and scarcely extending to the middle of the thorax. Grooves at base of wings scarcely evident. Scutellum subopaque, dull rufous, finely and evenly rugose with an almost imperceptible basal groove. Abdomen pitchy brown, somewhat rufous ventrally, smooth, shining; ventral sheath yellowish with long hairs. Legs dull yellowish brown with short hairs. Wings hyaline, pubescent, veins brown, heavily marked, especially the cross-veins; apical region with about seven small brown dots and a larger brown patch, and with three large brown clouds about the middle of the wings. Radial area closed with the veins thickened at the costa. Areolet present. Cubitus faint and extending to the first cross-vein. Length 1.5-2 mm.

Gall.—On the under side of the leaves of a species of white oak (probably *Quercus douglasi*). Monothalamous. Narrow and almost parallel to about the middle, thence suddenly becoming inflated into a club with the apex pointed. At the extreme base it is slightly broader and is attached by a point to the leaf. The gall very much resembles a miniature Indian club in shape. Brown in color, and the larva lives in the inflated part of the gall in a rounded cell. Length, 5-7 mm.; width of narrow part, 1 mm., of thickened part, 1.75 mm.

Habitat.—California (Napa and Sonoma Countries). Described from twelve specimens.

Type.—Collection U. S. National Museum.

Dryophanta multipunctata sp. nov.

Female.—Head yellowish brown, face broadly infuscated, eyes and ocelli black, microscopically, evenly granulose and pubescent. Antennae 14-jointed, first joint stout, second joint stout and much shorter than

the first; third joint very long and slender, fourth to sixth joints slender, subequal and shorter than the third; remaining joints gradually becoming shorter and slightly thicker toward the tip, pitchy brown black and pubescent. Thorax shining, finely and evenly pitted, with decumbent yellowish hairs, pitchy brown, somewhat rufous between the parapsidal grooves at the scutellum. Parapsidal grooves rather deep, widely separated anteriorly and converging at the scutellum, where they are moderately, widely separated. Anterior parallel lines very fine and indistinct. Lateral grooves distinct. Median groove wanting. Scutellum pitchy brown inclined to rufous, finely and evenly pitted, with yellowish hairs, basal groove not distinct. Abdomen pitchy black or dull rufous, smooth and shining dorsally, and covered with short pale hairs at the sides and venter. Legs pitchy brown or dull yellowish brown, pubescent. Wings hyaline, veins brown, cross-veins very heavy, outer portion of wings beyond the middle with many small brown spots, except in the radial area; about the middle of the wings two brown clouds situated on the veins. Areolet present. Cubitus continuous to the first cross-vein. Length, 2.75-3 mm.

Gall.—On the under side of the leaves of a species of oak. Monothalamous. Gray brown, spherical, sometimes slightly flattened at the base where the gall is attached to the leaf. The gall is irregularly wrinkled and covered with a dense, short and compact wooly substance and hairs. In general appearance it resembles the gall of *Philonix lanaeglobuli*. Diameter about 5 mm.

Habitat.—Kern County, California, December 6th, 1892.

Type.—United States National Museum.

Described from two specimens and two galls.

***Holcaspis chrysolepidis* sp. nov.**

Female.—Head, thorax and scutellum pale yellowish brown, abdomen somewhat darker with the dorsal region infuscated; legs slightly paler with the claws black. Antennae yellowish brown, terminal joints darker. Head very finely and evenly granulated, pubescent; ocelli and eyes black. Antennae 14-jointed. Thorax finely and evenly punctate with pale decumbent hairs. Parapsidal grooves very fine, less distinct anteriorly and almost parallel. Anterior parallel lines distinct, shining and extending to the middle of the thorax. Lateral grooves sharply defined, long and shining. Scutellum hairy, finely and evenly rugose. Abdomen shining, smooth, with a small patch of hairs at the base laterally. Legs pubescent. Wings long, yellowish hyaline, veins yellowish and are usually closely pressed together. Width 5-10 mm. Height 4-7 mm.

Gall.—On the twigs of oak (*Quercus chrysolepidis*). Monothalamous. Hard woody. Irregular in shape, somewhat rounded, sides flattened,

slightly oblique, ridged around the upper part of the sides, apex rounded. They occur singly and in rows of two, three, four or more, and are usually closely pressed together. Width 5-10 mm. Height 4-7 mm.

Habitat—Placer Co., California, November and December.

Types—United States National Museum.

Described from nine examples.

The gall of this species was figured by me in the Bulletin of the American Museum of Natural History, Vol. XXVI, plate VIII, figs. 8 and 9.

***Philonix californica* sp. nov.**

Female.—Head pitchy brown black, minutely rugose with scattered, short hairs. Antennae 13-jointed; first joint stout, cylindrical; second joint shorter, stout and rounded at the tip; third joint very long and slender; fourth, fifth and sixth joints slender and shorter than the third; remaining joints gradually becoming shorter and thicker toward the thirteenth, all pitchy brown and pubescent. Thorax pitchy brown or dull rufous, evenly rugose, somewhat wrinkled and with a few scattered hairs. Parapsidal grooves very fine and somewhat lost in the rough surface anteriorly, convergent at the scutellum. Scutellum evenly rugose like the thorax, and of the same color. Abdomen compressed convex at the sides and rather sharply keeled on the dorsum and venter, dark pitchy brown, smooth and shining. Legs pitchy brown, somewhat paler than the abdomen and pubescent. Wings aborted, not extending to the middle of the abdomen. Length 1 mm.

Gall.—On the upper surface of the leaves of a species of white oak. Monothalamous. Rounded, flattened disc-like, becoming slightly elevated toward the middle. The sides are flat and very thin, and the gall rests closely on the leaf. The larva lives in the center of the elevated part. The color is pinkish or purplish, with the apex sometimes yellowish. Width, 3 to 4 mm. Height, 1 mm.

Habitat—Kern Co., California, January.

Type—United States National Museum.

Described from five females.

***Andricus caepulaeformis* sp. nov.**

Female.—Head large, broader than the thorax, reddish brown, evenly and finely granulose. Antennae 14-jointed; first joint very stout and inflated; second joint short, subcylindrical; third joint very long and slender; fourth joint also slender, shorter than the third, remaining joints subequal, all blackish except the basal one which is rufous. Thorax minutely granulose with a few hairs. Parapsidal grooves pres-

ent, but not prominent, almost parallel. Anterior parallel lines scarcely evident. Median line running from the scutellum to about the middle of the thorax, not distinct. Pleurae with a large, smooth shining area. Scutellum rufous, rugose, foveae at base oblique and opaque. Abdomen reddish brown, posterior half piceous, smooth and shining. Legs reddish brown, long and slender, pubescent. Wings (immature) hyaline, veins brown. Length, 4 mm.

Gall.—In clusters around the twig of black oak (*Quercus velutina*). Monothalamous. Rounded with the apex pointed, and the sides longitudinally grooved. The rounded part is hollow and rather thin walled, and the base of the gall is imbedded in a cavity in the twig. Rose colored, hard and woody (when dry). In general appearance the gall resembles a very small seed onion. Length 5-8 mm. Width 4-5 mm.

Habitat—Indiana. (Mel. T. Cook).

***Andricus pisiformis* sp. nov.**

Female.—Head dark reddish brown, finely granulated and with short pale hairs. Antennae 13-jointed, reddish brown, terminal joints blackish. Thorax dark pitchy brown, reddish brown along the parapsidal grooves and laterally, minutely reticulated and with many pits, from each of which arises a short, decumbent, yellowish hair. Parapsidal grooves deep and well defined. Median groove distinct, and less so anteriorly. Lateral grooves deep. Anterior parallel lines not extending to the middle of the thorax. Scutellum reddish brown, rugose and with two large, deep, shining black foveae at the base. These are separated by a fine ridge. Pleurae pubescent, with a rather large shining area, pitchy brown. Abdomen subglobose, inflated, pitchy brown, smooth and shining. Legs brown, punctate and pubescent. Wings hyaline, veins brown, cross-veins heavy. Areolet small. Cubitus not reaching the first cross-vein. Length 2-3.50 mm.

Gall.—On the terminal twigs of white oak (*Quercus alba*) and post oak (*Quercus minor*) from the middle of May to early in June. Monothalamous. Spherical or pea-like. Milky white or pale greenish white, speckled and marbled with green or lilac. Fleshy when fresh, hard and woody when old and dry. It is hollow inside with no separate larval chamber. It is evidently a bud gall. Diameter 3-6 mm.

Habitat—New Jersey (Lakehurst); Massachusetts (Boston).

The flies mature in the gall during the latter part of September and in October, but do not emerge until the following spring. The gall is a pretty object and looks like a very small marble. The specimens on white oak from Boston were collected by Miss Cora H. Clarke at the Arnold Arboretum.